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CRITICAL AREAS

PROTECTION OF CRITICAL AREAS was mandated by Washington State's Growth Management law. Spokane County adopted critical area policies in the Comprehensive Plan, and in August 1996, adopted the Critical Areas Ordinance (CAO). This ordinance limits land uses or development and establishes review procedures for three critical areas: Wetlands, Fish and Wildlife Habitat, and Geological Hazards.

WETLANDS, involve a combination of water, soil type, and water oriented plants, man-made or naturally occurring. They have a variety of appearances ranging from a marsh with cattails to a field without exposed water. There are four different types of wetlands that can only be determined by the vegetation, soil and water. A site investigation is conducted by a wetlands specialist to determine if and where there are wetlands on the property, and if so, determine the type of wetland. Different wetland categories have different buffers, ranging from Category-1, 200 feet, 150 ft., 75 ft. and down to a 25 ft. buffer for Category-4. Wetland buffers are not to be disturbed and must remain in native vegetation. If wetlands are filled/eliminated, a wetland mitigation plan developed by a qualified wetland specialist is necessary and requires creation of new wetlands at greater than a 1:1 ratio, or wetland enhancement, along with a 5-year financial performance bond or guarantee that the new wetland improvements become established.

FISH AND WILDLIFE HABITAT, involves priority wildlife species and habitats and includes Riparian Habitats along flowing rivers and creeks. Development in these areas may require a Habitat Management Plan, prepared by a qualified biologist, which identifies how development impacts to wildlife or habitats are going to be mitigated. This Plan is reviewed by the Washington State Department of Fish and Wildlife who advises the City of Liberty Lake as to its adequacy. The Riparian Habitat found along flowing water of rivers, streams and creeks, retain buffers of 250 ft., 100 ft., 75 ft. and 25 ft. for different channel widths. These habitat buffers are to remain in natural vegetative cover which can limit development and uses of this portion of the property. Lakes and ponds do not have riparian habitat buffers, however, other regulations, including State and County Shoreline requirements, may apply if the area of a lake or pond is greater than 20 acres of water surface.

GEOLOGICAL HAZARDS, typically involve property with 30% or greater slopes or property with soil characteristics that have severe potential for erosion or landslides. Development and land uses can be limited in these areas and may require a Geo-Hazard Mitigation Plan prepared by a qualified landslide or erosion specialist (typically a civil engineer).

HOW WAS I SUPPOSED TO KNOW? Is a common reaction to being notified of critical area problems or violations. This is especially true for property owners who for years have made changes to their land or watched their neighbor make changes which are now prohibited or limited.

Because of the technical nature of identifying these critical areas many property owners may not realize they have one or more types of critical areas on or adjacent to their property. Additionally, many may not be aware of these regulations, which need to be considered before making changes to property. You may be making plans to improve property, remove brush and trees or do some grading to fill-in or change the shape of your land only to discover that the project is in violation of the CAO and that you may be required to spend more time and money to correct the violation.

Many times Liberty Lake is able to assist in identifying and understanding these new regulations because the owner has applied for a development permit. During permit review, projects are evaluated for compliance with the standards for critical areas. But many projects do not require a development permit and the CAO does not require a separate permit for critical area development.

CRITICAL AREAS

(page 2)

Well placed Questions and Information are the best tools to prevent a land owner from wasting time and money on a project and becoming involved in a costly, upsetting and time consuming violation process.
Anyone who is thinking about developing or changing the physical aspects of their property should **CALL FIRST**, before it becomes necessary to correct a problem. Contact Liberty Lake Planning and Community Development at (509) 755-6700 for assistance before starting design work, developing or changing your property within the City. This includes any development in the water, next to water, marsh, wet areas, next to flowing water, in areas covered by native vegetation, steep slopes and areas that show land movement (landslides) or erosion.

BASEMENTS IN HIGH RISK DRAINAGE AREAS

Why is the City restricting basements?

The groundwater levels in parts of the designated areas are high or the depth to bedrock is shallow, or both. The result has been several cases of basement flooding. Many new homes have been built during a "dry" weather cycle, and have no "apparent" flooding risk. However, during "wet" weather cycles, many of these basements may be in danger of flooding due to high groundwater levels. One way to avoid the problem is to prohibit basements except under special circumstances.

What is the definition of a basement?

The Stormwater Control Ordinance states that a basement, usable or habitable space, and appliances or equipment shall not be permitted below the floor level that is elevated a minimum of twelve-inches above the highest elevation of finished grade within 5-feet of the structure. In other words livable space or space with appliances or equipment will not be allowed below finished ground level. In many cases this precludes the construction of "basements" as defined in the Uniform Building Code (UBC).

What if other homes in my neighborhood have basements and have not flooded?

We cannot predict future weather patterns and their impact to groundwater. There is not enough subsurface information within these watersheds to identify exactly which areas will have basement problems. The ordinance does not completely ban the installation of basements.

If I want a basement, what must I do?

For a basement to be allowed in the High Risk Drainage Areas, you must go through a basement approval process. Basement Approval Packets can be obtained from the Planning and Community Development Department.

Before obtaining a building permit you must:

1. Engage the services of a Geotechnical Engineer (a licensed Civil Engineer with geotechnical experience) to conduct a site investigation on your property and submit a geotechnical investigation report to Planning and Community Development.
2. Engage the services of a licensed Architect or Civil Engineer to submit design measures for the below-grade space (basement) that will prevent the entry of surface/ subsurface waters. The design should be submitted to the Stormwater Utility. The packet informs the Architect/ Engineer of what is required.
3. File a Title Notice with the County Auditor stating that the property is located in a potential high-groundwater area and that measures have been taken to prevent water from entering the basement. Submit a copy of the filed Title Notice to the Stormwater Utility. (Form provided in Basement Approval Packet.)
4. Fill out the signed Special Agreements for Basement Inspection and return to the Stormwater Utility. This document is an agreement between you, your builder, and your Architect/ Engineer. The agreement specifies what duties each party will perform to ensure the design measures will prevent the entry of surface/subsurface waters. (Form provided in Basement Approval Packet.)

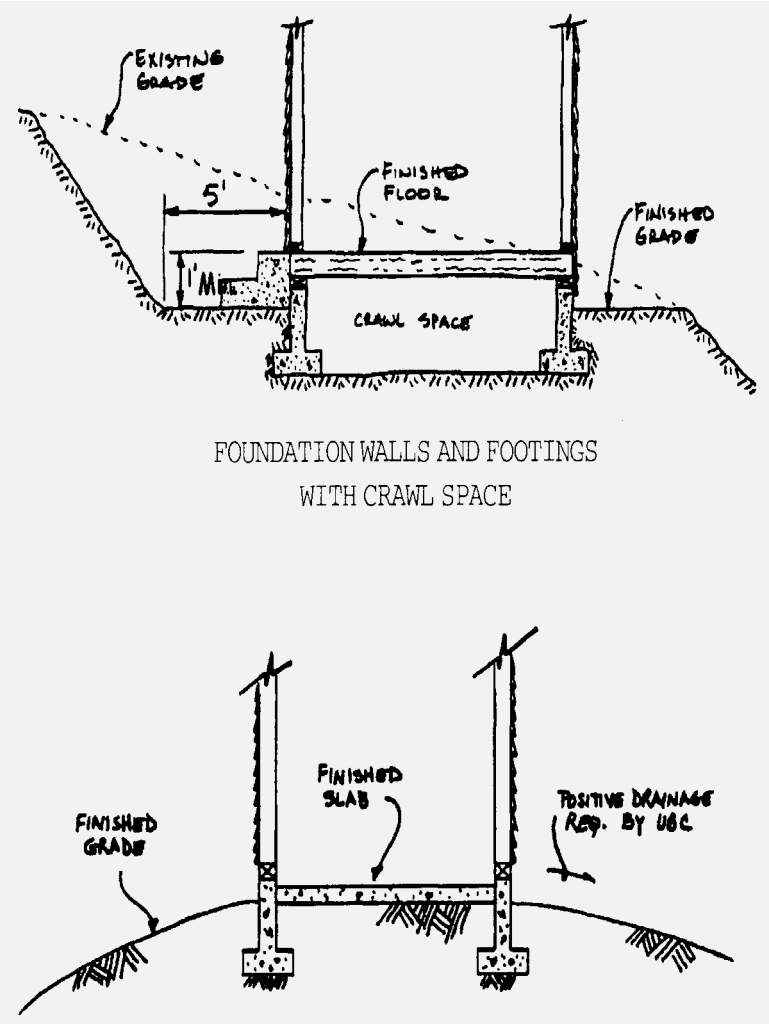
After the City has accepted the geotechnical report and the design measures, the Title Notice has been filed, and the signed Special Inspection Agreement has been returned to the City, a building permit, allowing the identified construction, can be obtained. During construction of the basement, your Architect/ Engineer must inspect the construction to be sure that the specified design measures have been implemented (see Special Inspection Agreement). After construction of the basement, the Architect/ Engineer must submit all inspection reports required during the Special Inspection process (see Special Inspection Agreement) to the Stormwater Utility in order to receive the Final Inspection of the structure (residential) or Certificate of Occupancy (commercial).

CRITICAL AREAS

(page 3)

Examples of construction that do not require Basement approval process:

FOUNDATION WALLS AND FOOTINGS WITH CRAWL SPACE



SLAB ON GRADE

BASEMENT APPROVAL PACKET FOR HIGH RISK DRAINAGE PROBLEM AREAS

There is Storm water Control Ordinances in affect, which may control the installation of basements in certain areas of the City. Those ordinances contain restrictions on the construction and drainage of basements, among other requirements.

This packet provides the following information:

- The process to follow to obtain a permit for building a basement,
- The Ordinance Requirements regarding basements, and
- The necessary forms.

CRITICAL AREAS

Approval Process:

Prior to receiving a building permit:

The owner/applicant must submit the following information to the City of Liberty Lake, Planning and Community Development Department.

1. A copy of the site-specific **geotechnical investigation report** prepared by a civil engineer with experience in geotechnical engineering, currently licensed in the State of Washington.

The geotechnical report should include, at a minimum:

1. The date of site investigations(s), depth(s) to groundwater and date(s) of observation, description of soil column, description and location of surface drainage features, source(s) of referenced geotechnical and hydrogeologic information about the site and the surrounding area, as well as conclusions and recommendations regarding the construction of a basement on the site. The report should also include any special design recommendations for the basement dictated by the geotechnical investigation.
2. A copy of the **basement design**, prepared by an architect or civil engineer, currently licensed in the State of Washington. The design submittal should clearly state what design and construction measures are required to prevent the entry of surface water and groundwater. The design should identify the discharge point of-groundwater drains, if used. (Discharge may not enter public road, public right-of-way, sanitary sewer system or surrounding properties.) The design must meet the requirements of the ordinance and must include any measures recommended by the geotechnical investigation (#1, above).
3. A copy of the recorded **Title Notice** language. (Form attached)
4. A copy of the **inspection agreements**, signed by the Owner, Contractor (Builder), and design architect or engineer (#2, above). (Forms attached)

Prior to receiving final inspection or Certificate of Occupancy:

The owner/applicant must submit the following to the Liberty Lake, Planning and Community Development Department:

1. Copies of all required reports, record drawings, and inspector's verification of construction

Ordinance Requirements

The Storm Water Control Ordinance requires that the lowest finished or unfinished floor level of any structure, or addition thereto, shall be elevated a minimum of 12-inches above the highest elevation of finished grade. For the purposes of this Section, Finished Grade shall be defined as the elevation of an imaginary line located a distance of 5-feet (60-in) (1.524-m) from the perimeter of the foundation of the structure. The structure shall meet all Uniform Building Code (UBC) requirements for drainage and slope setback. Slab-on-finished grade construction is exempt from this paragraph.

Basements, other floor levels, useable or habitable space, or space with appliances or equipment, hereinafter referred to as basement, shall not be permitted below this floor level, unless the following steps are taken:

1. Site specific geotechnical analysis will be required by a civil engineer, currently licensed in the State of Washington, with experience in geotechnical engineering. The geotechnical engineer shall consider readily available subsurface information, on file at the Spokane County, for surrounding properties in the evaluation of the feasibility of the construction of basements or useable or habitable space below the first story of the proposed structure.
2. The basement shall be designed by an architect or a civil engineer, currently licensed in the State of Washington, to prevent the intrusion of surface water and groundwater. The design shall include current standards of practice and technology (e.g. French-drains, sealant, and positive drainage away from the structure), and the recommendations of the geotechnical engineer. The design architect or engineer shall conduct a special inspection of the basement construction to verify it is constructed as designed.

CRITICAL AREAS

(page 5)

3. The property owner shall prepare and file with the County Auditor, a notice to be placed on the title of the property. The notice shall include the legal description, tax parcel number, and address of the property. The notice shall take the form of a signed affidavit by the property owner and shall include the following information:
    a. That the property is in a potential high groundwater area, and
    b. That measures have been taken to prevent water from entering this basement and;
    c. That copies of said measures have been provided for Liberty Lake Planning and Community Development Department files.

The document shall also include a release of liability running to Liberty Lake in conjunction with its issuance of a building permit on the property, to include a basement, as designed under the Ordinance and item (2) herein above.

The Liberty Lake Planning and Community Development Department shall prepare and make available, forms to be used by a property owner in conjunction with his/her meeting the responsibilities of this provision.

These requirements do not preclude or remove the requirements from any other applicable laws and regulations.

Definitions

Special Inspector: A Professional Engineer or Architect, licensed in the State of Washington and his authorized agents, hired by the Owner to provide quality control testing and inspection services.

Owner: The person or company who owns the property sponsoring the project.

Contractor: The person or company hired by the Owner to construct design measures that will prevent the entry of surface and/or subsurface waters into a below grade basement, useable or habitable space.

Accepted Plans: Design plans which are prepared, stamped, and signed by an Engineer or Architect, currently licensed in the State of Washington. The design measures are intended to prevent the entry of surface and/or subsurface waters into a below grade basement, useable or habitable space. Planning and Community Development Staff and the City's Engineer will review the plans.

Design Engineer or Architect: The Engineer or Architect of Record for the design of measures to prevent the entry of surface and/or subsurface waters. The Engineer or Architect must be currently licensed in the State of Washington.

General Conditions

The Owner, Contractor, and Special Inspector are to perform their respective duties in a cooperative manner, to insure that the drainage facilities are constructed in accordance with the Accepted Plans.

Also, see our brochure on Slopes & Setbacks

For more information or an appointment contact:
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